

REMARKS/ARGUMENTS

The Applicants' attorneys appreciate the Examiner's thorough search and remarks.

Claims 4 and 9-12 have been rejected under 35 U.S.C §103(a) as obvious over Nakamura et al., U.S. Patent No. 5,627,583 in view of Kato, U.S. Patent No. 4,831,444. Reconsideration is requested.

Digital imaging involves capturing an image using a solid state image pickup device such as a CCD. A CCD transmits electronic signals which are representative of a captured image, via, for example, a cable for image processing in an image processing unit. The cable can introduce a delay in signal transmission, which causes image quality problems.

In a digital endoscope an image pick up device such as a CCD is in communication with an image processing unit via a transmission cable. Thus, a digital endoscope can suffer from the delay in signal transmission and exhibit the associated image quality problems.

To address such a problem an endoscope according to the present invention includes a delay circuit which adjusts the timing of the drive signals of the solid state image pick up device to alleviate the problems caused by the delay in the transmission.

Referring, for example, to the specification the drive signals which drive the CCD are corrected "so that the phase thereof is advanced by the delay time". See specification at page 15, lines 16-24. Thus, the phase correction is achieved by correcting the drive signals of the CCD.

Accordingly, claim 4 has been amended to provide that the delay amount adjusting circuit cancels the effect of signal delay "by adjusting timing of drive signals of the solid-state image pickup device."

Kato, on the other hand, does not show or suggest adjusting the timing of the drive signals of the solid-state image pickup device. Rather, Kato teaches reading the drive signals on that drive CCD 20 from VCO 24, comparing the phase of those signals to the phase of signals from VCO 34 in phase comparator 38, so that the outputs of "timing generation 32 and CCD 20 are made coincident in phase". Col. 4, lines 44-45. Thus, Kato teaches matching the timing of signal processor 30 to the output of CCD 20 rather than driving the CCD in phase with the signal processor. It is respectfully submitted, therefore, that claim 4 is not taught or suggested by the combination of Nakamura et al. and Kato. Reconsideration is requested.

Claims 9-12 depend from claim 4. Each of these claims includes other limitations which in combination with those of claim 4 are not shown or suggested by the art of record.

Reconsideration is requested.

The application is believed to be in condition for allowance. Such action is earnestly solicited.

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